
Nordic Connect Service Level Agreement

Version 2.7

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1 Introduction

This document is subject to change. Telenor reserves the right to alter the content of this document with the purpose to make further developments, improvements and adjustments which do not reduce the quality of the services and products. The legally binding version of this document is always the latest official release from Telenor.

Nordic Connect has different service levels designed to fulfil common customer demands across the Nordic region. Telenor is thus prepared to fulfil our customer demand for excellent and flexible network services.

The purpose of this Service Level Agreement (SLA) is to define the Nordic Connect service undertakings from Telenor in addition to the relevant Service descriptions. Furthermore, this document defines default service levels and add-on service levels. The document states the proper use of terms and conditions, and is hence the service level agreement with the individual customer and Telenor on parameters such as availability, contact channels and rectification (fix time).

Every local adaptation is defined in this document and written between brackets with the abbreviations DK for Denmark, FI for Finland, NO for Norway and SE for Sweden.

2 Terms and definitions

Table 2.1 presents the definition of terms used in this Service Level Agreement. Any indication of time refers to GMT+1. The term "Service Description" in the table refers to the document that defines the design of the product.

Terms	Definitions
AVAILABILITY	The lowest degree of availability a customer should expect of a service expressed in percentage of maximum availability according to the Service Description. The availability is measured during a period of one (1) month.
SERVICE TIME	The time period, according to the SLA that Telenor supply fault handling and service. (Se also: Fault Announcement Time)
FAULT ANNOUNCEMENT TIME	The time period, according to the SLA that Telenor admit fault announcements.
START TIME	The maximum amount of time after fault announcement until fault handling begins during service time.
RESPONSE TIME	The time elapsed from the customers' first contact with Telenor with a method described in the SLA and the point of time when Telenor responds or offer service during Fault Announcement Time
FIX TIME	The maximum time elapsed during service (suspense time excluded) to attend a fault in service after notification from the customer and until the fault is rectified
SUSPENSE TIME	The elapsed time during service time when fix time is not calculated as a consequence of the customers responsibility to take action in fault analyse and handling.
INTERRUPTION TIME	The total time elapsed between the customers' fault notification and when the fault is rectified.
DOWN TIME	The accumulated time during service time when "fault in service" prevails. (Excluded suspense time, service window and time for planned job)
APPEARANCE TIME	The time elapsed from Telenor sends a receipt to customer on received fault notification, until Telenor appears in person at the customer premises (in accordance to the SLA and applicable).

Terms	Definitions
SERVICE WINDOW	The recurring time defined in the SLA that Telenor uses to maintain our services without influencing the availability.
PLANNED JOB	Specific time period outside the defined service window Telenor or sub-contractors may use to maintain the service without influencing the availability calculation. An “Urgent planned job” is announced in Webline and is carried out within 24 hours and is shorter than 60 minutes.
FAULT IN SERVICE	Fault in service is defined as every aberration from a fully functional service and is classified in different categories some of which are related to the availability.
ACTUAL FAULT TIME	The actual time period the service is not available to the customer.
WAYS OF CONTACT	The methods of contact, according to the SLA, the customer should use for service and support and which ways Telenor uses to communicate with the customer.
POINT OF MEASURE	The technical probe defined in the service description for the calculation of availability.
CONTRACT DONE	The point in time when customer and Telenor signs contract for delivery of service.
START OF DELIVERY	The point in time when Telenor has received and accepted a complete order with all necessary elements and correct content.
SERVICE DELIVERED	The point in time when service is delivered and tested at the customer site. Customer receives a delivery confirmation.
DELIVERY CONFIRMATION	A document (by email) confirming delivery of service.
DELIVERY TIME	Time period from Start of delivery to Service Delivered.
DELIVERY ACCEPTANCE	A confirmation from the customer stating delivery of service.
DELIVERY ACCEPTANCE PERIOD	The time period (10 days) when Telenor admits warranties in acceptance of the service.
ORDER	An order is a complete specification of services including parameters needed for a complete delivery. The order must be legally acceptable for both customer and Telenor organisations.
DAYS	Days are defined as working days (Monday through Friday, except public holidays).
CHANGE HANDLING	Change Handling always refers to an existing Nordic Connect access that will be changed or replaced, and change orders must include reference to the existing Nordic Connect access (LU number).

Table 1 Terms and definitions – SLA

2.1 Example

2.1.1 Fault Handling

This is an example of how the terms and definitions are implemented in a specific fault case.

A *fault* is detected by the customer at 8.30 AM and it is later reported to Telenor. After a short *response time* Telenor will acknowledge the fault announcement and return a “case number” as a trouble ticket. According to our definition Telenor will immediately attend the fault handling procedure and the *down time* calculation begins. In this example since the fault has physical reasons, Telenor appears at the customer premises after an *interruption time* as part of the fault handling procedure. When *service time* ends at 5 PM, the fault handling procedure is stopped and the down time calculation is halted and starts when the next *service time* is present. During fault handling, the customer is required to restart a router on his own and this is treated as a *suspense time* and the *down time* calculation is halted. The next day before noon the fault is eliminated and the total *down time* is then calculated. It is also reported to the customer and the *case* is closed. Later the same day a short and earlier announced, *planned job* is done but this has no impact on down time calculation.



Figure 1 Terms and definitions in fault handling and service support

3 Service levels

Every Nordic Connect service offered and delivered by Telenor has a related default service level. This is described in the service description document. Every extension above the standard level is treated as add-on services. In situations where a non-standard solution is requested, an additional agreement has to be made based on the Nordic Connect range of service components.

For all combinations of services as defined in this service level agreement, the lowest level of service is valid for the total combined solution. As an example – an add-on product to a main product cannot have a higher service level agreement than the main product itself. Every exception from this has to be agreed upon and documented as *special terms* for the agreement.

3.1 Service Parameters

Every service level offered by Telenor is related to the service parameters service time, fix time and availability as listed in table 3.1. Please note that some of the service agreements are closely related to special technical demands on how the service is implemented. There are major differences in the interface of responsibility for the different services e.g. Managed versus Partner.

3.2 Proactive Surveillance

For SLA level 4 to SLA level 6, proactive surveillance is included.

When the connection to the customer placed (CE) router is lost, an ALARM is generated in Telenor's monitoring system. Within the customer's service time, Telenor will contact the customer to notify about a possible fault on the service. If, after doing fault analysis and consulting with the customer, there is an actual fault on the service, Telenor will start fixing the fault in accordance with the description in the customer's SLA.

Down time is calculated from when the customer and Telenor have made clear that there is an actual fault on the service, and to the fault is fixed. If the customer experiences a fault on the service, this should be notified to Telenor immediately regardless of proactive surveillance.

Telenor will contact the customer's given contact person according to what has been agreed upon with the customer.

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3.3 Service Level Overview

The Service window for Nordic Connect is Monday 0100 - 0600.

Access/site type	Monthly availability	Fix time		Automatic failover	Service time/SLA level		
		Physical ²⁾	Remote ³⁾		Mon – Fri ¹⁾ 0800 - 1700	Every day 0800 - 2200	Every day 0000 - 2400
Managed Mobile	99,00 %	< 12h	< 12h	n/a	SLA 1	n/a	n/a
Managed/Partner Plus	99,50 %	< 12h (NO: < 8h)	< 4h	n/a	SLA 2	n/a	n/a
Managed/Partner Complete	99,60 %	< 8h ⁴⁾ (NO: < 5h)	< 4h	n/a	SLA 4	n/a	SLA 4.3 ⁵⁾
Backup	99,70 %	< 8h (NO: < 5h)	< 4h	< 3 min	SLA 4.7	SLA 4.8 ⁵⁾	SLA 4.9 ⁵⁾
Redundant	99,80 %	< 8h	< 4h	< 3 min	n/a	SLA 5	SLA 5.3
Fully redundant	99,99 %	< 8h	< 4h	< 3 min	n/a	n/a	SLA 6

- 1) Normal working days
- 2) Norway/Denmark: Fix time includes time to restore redundant/secondary access.
Sweden: Fix time for locations with backup or redundant access denotes time to restore main/primary access while traffic is running on redundant/secondary access.
- 3) Fix time, remote: Terminal based errors correction that does not involve hardware failure or errors in the access subnetwork.
- 4) Sweden: 12 hours physical error correction for accesses based on TeliaSonera's Ethernet Sweden product (0730 – 1800, Monday – Friday only)
- 5) Availability of extended SLA levels depend on regional coverage, and must be verified for each site

Table 2 SLA levels

Valid on each level:

Fault announcement time	24 hours, every day
Response time	< 20 sec. in 80% (telephone) < 30 min. in 100% (fax, email)

Table 3 Fault announcement

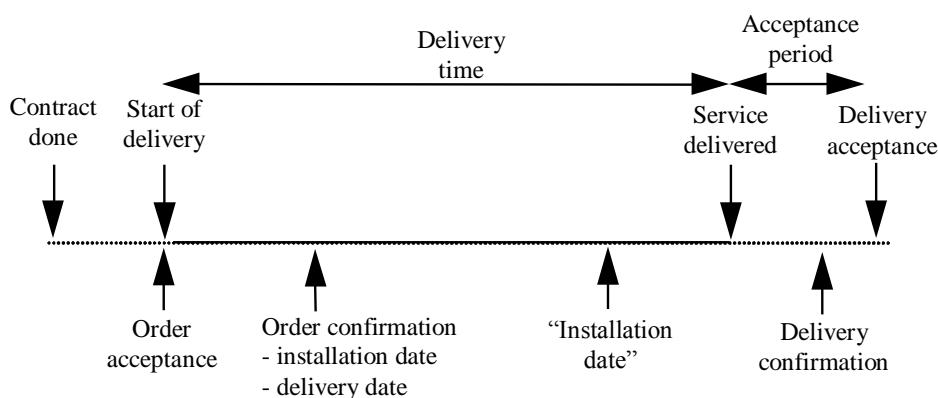
3.4 Spitsbergen

Fault handling at Spitsbergen might introduce longer fix times due to shortage of physical components and difficult shipment.

4 Order and Delivery

Stated delivery times must be considered as binding maximum times from Telenor. When placing order, state your desired delivery date. The order confirmation will be sent to the customer within five (5) working days from when a complete order receipt is received from the customer. Any errors or lack of information in this receipt will be notified within five (5) working days. This applies to accesses up to 2Mbps (inclusive). For accesses above 2Mbps, please contact Telenor for details. Order confirmation from Telenor will if possible confirm desired delivery date or indicate another date if the desired delivery date is not possible. Confirmation of delivery date will be sent within 15 days.

Delivery will always be performed within normal working hours (Monday to Friday between hours 08.00-16.00). Any requirements for delivery and implementation outside this time window will incur additional charges. Such requirements must be stated when ordering and is only performed when duly accepted and confirmed by Telenor. Changes to configuration, access line or CPE may demand downtime from 0,5 to 4 hours.



Figur 1 Visualisation of different milestones in order and delivery

4.1 Delivery Time

Nordic Connect Managed & Partner		
Type of delivery	Description	Value ¹⁾
New access, <i>Basic/Plus</i>	xDSL Norway: ADSL VDSL SHDSL	30 days Norway: 20 days 20 days 25 days
New access, <i>Complete</i>	Leased line ≤ 2Mbps For all other access types	30 days 50 days ^{2) 3) 4)}
New access, <i>Managed Mobile</i>	CE installed by customer CE installed by Telenor	4 days 10 days Denmark: 15 days

Nordic Connect Managed & Partner		
Type of delivery	Description	Value ¹⁾
Change of configuration, terminal based	Change of service parameters within existing service, and/or adding new optional services. No physical change required.	5 days
Change of bandwidth, terminal based	No physical change required.	5 days
Change of bandwidth and/or configuration, New CPE hardware	Change of bandwidth and/or adding new optional services. Existing CE router does not support the change and must be replaced by a different model.	15 days
Change of bandwidth and/or configuration. New access	Change of bandwidth and/or adding new option(s) New access line is required og change is delivered as a completely new NC access.	As new access
Conversion of service	Conversion between Basic/Plus/Complete or Partner and Managed	As new access
Delete optional services	No physical change required	5 days
Order confirmation	On new access with delivery date. The delivery time starts when the order is confirmed from Telenor.	15 days
Service lock period	NetCentric Internet Access All other access products	6 months ⁶⁾ 12 months ⁶⁾
Termination of Service	Time period from written notice is received, running from turn of the month after notice is received.	1 month ⁶⁾

¹⁾ All days are working days. All times in "days" are maximum times.

²⁾ Delivery time may depend on physical expansion of the access network that may exceed 50 days. Time for delivery confirmation might also be exceeded.

³⁾ For speeds above 2 Mbps the delivery time may depend on physical expansion of the access network that may exceed 50 days. Time for delivery confirmation might also be exceeded.

⁴⁾ For accesses in Swedish zone 3, time of delivery can depend on physical expansion of access network and 50 days be exceeded. Time for delivery confirmation might also be exceeded.

⁵⁾ Written confirmation from VPN owner must follow order.

⁶⁾ Contract can define other conditions.

Table 4 Delivery times for Managed and Partner services.

Nordic Connect Security Services		
Type of delivery	Description	Value
Installation	Internet Firewall	20 days
<i>Firewall And Internet Services</i>	NetCentric Firewall	20 days
	NetCentric Internet Access	15 days
	Redundant Firewall	20 days
	IPsec-Termination	15 days
	Virus Scan Web	15 days
	Web Filter	15 days

Nordic Connect Security Services		
Type of delivery	Description	Value
Installation ¹⁾ Remote Access Services	OutOffice Standard	15 days
	OutOffice Internet	15 days
	OutOffice Signature	15 days
Changes in the Firewall Rules set	Planned requests	3 days
	Urgent/critical changes	Immediate response (max 2 hours) ³⁾
Other configuration changes	Changes in NAT, DNS, Mail Relay, etc	5 days
Changes in bandwidth	Internet Firewall, NetCentric Firewall, NetCentric Internet Access, Redundant Firewall, IPsec-Termination	5 days
Changes in capacity	Virus Scan Web, Web Filter	5 days
Order confirmation	New installation	10 days
Service lock period	Internet Firewall	12 months
	NetCentric Firewall	12 months
	NetCentric Internet Access	6 months
	Redundant Firewall	12 months
	IPsec-Termination	12 months
	Virus Scan Web	6 months
	Web Filter	6 months
	OutOffice Standard, OutOffice Internet, OutOffice Signature	6 months
Termination of Service	From written notice is received, running from turn of the month after notice is received. ²⁾	1 month

¹⁾ Installation means delivery of the web interface OutOffice Agenda that enables the customer's VPN Administrator to define and activate individual OutOffice users.

²⁾ Contract can define other conditions

³⁾ Cannot be guaranteed in Sweden.

Table 5 Delivery times for Security services.

4.2 Delivery Acceptance

When the customer placed router or switch is physically installed and Telenor has carried out the configuration of the service from the operations centre the service is considered as delivered. Once the configuration has been done, measurement and reporting of technical quality will commence immediately. When the Operations Centre has finished initiating the access the availability reporting on the Service WEB portal Webline will be initiated. The Customer will, from the point in time when access is announced as available at the port, have an agreed acceptance period of 10 working days to test the functions in the Service. If faults are discovered in the Service provided from Telenor that significantly reduce the Customer's opportunity to test the network, the parties may negotiate for an extended acceptance period.

If the Customer notifies no serious faults by the expiration of the acceptance period, the Service delivered is deemed to be in accordance with the contract. If the Customer discovers faults during the

acceptance period, the customer must notify Telenor immediately by contacting the Helpdesk or the Telenor contact person. If the fault occurs during the acceptance period the Customer will be credited on the first invoice due.

4.3 Delivery Deviation

When Telenor discovers a deviation from the agreed upon delivery, Telenor shall notify the customer contact person at the installation site and the customer's coordinator. When the Customer discovers a deviation from the agreed upon delivery the Customer must notify the Telenor contact person given in the confirmation letter. In projects where other arrangements are agreed the guidelines agreed in the project will be followed.

4.4 Pre-delivery Requirements

Telenor expects the Customer to fulfil the following requirements regarding pre-installation preparations:

1. Space for required equipment
Clearance of necessary space for Telenor equipment in a room no smaller than 1x1x1m. The location shall be a normal office environment in terms of temperature, humidity and atmospheric dust/cleanliness. Access to the installation space and equipment should be limited to authorised personnel only. If radio access with antenna is used, customer must accept and grant authorisation for installation of equipment before installation can start.
2. Electricity and separate circuits etc.
There must be 220 V sockets with earth in the immediate vicinity of the equipment. The electricity supply should preferably be on a separate circuit. Equipment is not delivered with UPS.
3. Electrical noise and spikes.
Unusually strong electrical disturbances are not allowed in the immediate vicinity. The responsibility for avoiding damage to equipment due to voltage spikes such as from lightning is the Customer's.
4. Distribution network and cabling.
Unless specifically agreed upon all connections between Telenor deployed equipment and lines to other units may be executed without provision of fixed cabling.
5. Other suppliers/contractors.
If implementation of the delivery requires assistance from other suppliers, for instance those who have already supplied equipment to the Customer, the Customer must ensure that they are available to Telenor without delay. The customer is responsible for the coordination with other related suppliers, if necessary for the delivery.
6. Availability at installation time.
The contact person shall be available (on mobile or similar) to Telenor at the agreed installation time and place. The contact person shall have access to the premises where the installation will be made and have keys and/or other device to enable access to the premises and installation space.
7. Knowledge and information about delivery.
The contact person at the installation place shall have information and knowledge enabling Telenor to carry out the task in a manner satisfactory to both parties.

4.5 Physical Access into Installation Site

Telenor must be ensured free access for communication into the service interface. Telenor must be authorised to make the necessary installations throughout the complete premises for the installation. This is for access to any space within the customer premises necessary for the delivery.

4.6 Installation Inconveniences

No compensation is offered for nuisance of installation in connection with the access located on the Customer's premises.

4.7 Express Delivery

The Express Delivery can be ordered both for new establishments and new subscriptions, relocation of sites, and changes in already established Nordic Connect subscriptions (i.e. changes in access technology or bandwidth).

Express Delivery is only available in Norway.

Telenor can provide Express Delivery with the following Delivery Times for the different access technologies, see tables below:

Access technology	Express delivery time		
	7 days	12 days	22 days
ADSL	Yes	No	No
VDSL	Yes	No	No
SHDSL	Yes	Yes	No

Table 6 Express delivery times for xDSL access technologies, given in working days

Access technology	Express delivery time		
	8 days	13 days	23 days
Leased Lines <= 2Mbps	Yes	Yes	No
Leased Lines > 2Mbps	No	Yes	Yes

Table 7 Express Delivery times for Leased Lines technologies, given in working days

The standard Terms of Delivery for Nordic Connect is also valid for Express Delivery. In addition, the following conditions are valid for Express Delivery:

- Telenor has no obligation to do an Express Delivery, and can therefore not give any guarantees that Express Delivery is possible in any customer wanted location, and for any customer wanted access technology. Each customer case will be considered separately.
- For a given access speed, Express Delivery is only possible where Telenor has coverage for that access speed, and when Telenor has resources to fulfil the delivery.
- For redundant solutions, the delivery dates can be different for the main and redundant access lines.

Note: Express Delivery is not possible if Telenor must physically expand the access network. An example is when Telenor must provide new fiber cables to the customer premises. Express Delivery of new fiber cables are not possible.

4.8 Guarantee of Delivery

If the delivery is not completed at the agreed time for Service Delivered, the customer has the right to reimbursement.

The conditions for reimbursement are that the customer must have fulfilled his/her contractual obligations, and also made sure that the customer's procedures for installation are followed according to the contract.

The service is considered as delivered when:

- The customer placed router or switch is physically installed,
- Telenor has carried out the configuration of the service from the operations centre,
- The customer placed router or switch can exchange data packets with Telenor's IP network.

The reimbursement corresponds to three months of monthly charges for the affected Nordic Connect access, and will be credited on the next invoice from Telenor.

The Guarantee of Delivery is valid for:

- New deliveries of Norwegian accesses to customers in Norway only.
- Nordic Connect accesses with access capacity up to 10Mbps.

The reimbursement form is available at www.telenor.no/vilkar, and a request for reimbursement must be claimed within 5 working days after the agreed time for Service Completed.

The reimbursement is not valid for Nordic Connect Options. The Guarantee of Delivery is only valid for the given access, and not for other accesses connected to it in a VPN solution. By this there will only be possible to get reimbursement for the given access where the delivery has not been fulfilled.

4.9 Conditions regarding change handling (applicable to Norwegian customers only)

4.9.1 Downtime

During the implementation of a change to an existing NC access some downtime can occur. However this is to be considered to be a planned job and shall not influence on the availability calculations.

The duration of the downtime will depend on the type of change and consequences as shown in Table 8. Please note that the downtimes listed are expected downtime and not guaranteed.

Nordic Connect Managed & Partner		
Type of change	Description	Expected downtime
Change of configuration, terminal based	Change of service parameters within existing service or adding new options. No physical change required.	Short interruption of service ¹⁾
Change of bandwidth, terminal based	No physical change required.	Short interruption of service ¹⁾
Change of configuration New CPE hardware	Change of bandwidth and/or adding new options. Existing CE router does not support the change and must be replaced by a different model.	30 minutes
Change of configuration New access	Change of bandwidth and/or adding new options. New access line is required og change is delivered as a completely new NC access.	No downtime ²⁾
Conversion of service	Conversion between Basic/Plus/Complete or Partner and Managed. New access line is required og change is delivered as a completely new NC access.	No downtime ²⁾
Delete option	No physical change required	Short interruption of service ¹⁾

Table 8 Expected duration of downtime for different types of changes

Notes:

- 1) Typical downtime is < 3 minutes
- 2) This does not take into account the downtime that occurs when the LAN cable is moved from the existing to the new access.

4.9.2 Time of delivery

Changes to an existing Nordic Connect access will as a rule be delivered and implemented during normal working hours 08:00 – 16:00 on weekdays.

Customers can request that changes are delivered outside normal working hours at an added price. This assumes that the request is forwarded at the same time the change is ordered and that the required resources from Telenor are available at the time requested.

4.9.3 Norwegian B-ends in Sweden and Denmark

With the exception of “Change of service parameters within existing service”, change orders are not supported for Norwegian B-ends in Sweden and Denmark. Delivery times for changes are therefore the same as for a new Nordic Connect access.

5 Status Information and Reporting

5.1 Information and Error Reporting

Telenor monitors all its services continuously in search for errors in production and performance. As a consequence customers may access a variety of information and error reports in different ways. The form and type of information is closely related to the product provided and the agreed upon service level and its corresponding communication channel. The varieties of status and information reporting are stated in Table 5.1.

Service level	Ways of contact	Information	Frequency	Planned job announcement
LEVEL 1	WEB	General operational information	Every 4 hour or at status changes, what appears first. ¹⁾	WEB / email
LEVEL 2	WEB	General operational information	Every 4 hour or at status changes, what appears first. ¹⁾	WEB / email
LEVEL 4, 4.3	WEB/phone NO: phone/email DK: phone/email	General operational information with specific error descriptions.	Every 4 hour or at status changes, what appears first. ¹⁾	Email
LEVEL 4.7, 4.8, 4.9	WEB/phone NO: phone/email DK: phone/email	General operational information with specific error descriptions.	Every 4 hour or at status changes, what appears first. ¹⁾	Email
LEVEL 5	WEB/phone/SMS NO: phone/email DK: phone/email	General operational information and specific error descriptions with cause and estimated fix time.	Every 2 hour or at status changes, what appears first. ¹⁾	Email
LEVEL 5.3	WEB/phone/SMS NO: phone/email DK: phone/email	General operational information and specific error descriptions with cause and estimated fix time.	Every 2 hour or at status changes, what appears first. ¹⁾	Email
LEVEL 6	WEB/phone/SMS NO: phone/email DK: phone/email	General operational information and specific error descriptions with cause and estimated fix time.	Every 2 hour or at status changes, what appears first. ¹⁾	Email

¹⁾ Or as agreed with customer. Whenever a fault affects a large number of customers (more than 20), fault handling is prioritised and customers are contacted as soon as possible. Updating error reports on the web will then be prioritised.

Table 9 Overview – contact channels and type of information.

5.2 Escalation

When service management is not undertaken as specified in this document or the Service Description for the actual product, there is an escalation procedure to be used. Escalation should be performed through the Helpdesk. A typical escalation is:

1. Helpdesk, technician
2. Helpdesk, leader
3. Technical Manager for service
4. Operations Manager for service
5. Director of Service

This differs within the Nordic countries.

5.3 Case Status Reporting

Reporting to customers regarding fault tracking, handling and error reporting is treated in the following way:

Case status is reported according to Table 5.1. To follow a specific case, the customer uses a unique case number assigned to the fault at the time of announcement of the fault.

A customer with service agreements on levels 1, 2 or 4 is informed about status on faults classified as "Major faults" every four hours. Reports on every other type are updated as soon as status changes take place.

Customers with service agreements on 5, 6 or higher are informed about status on faults classified as "Major faults" every two hours and also reported by phone or other methods agreed upon. Reports on every other type are updated as soon as a status change takes place.

6 Availability

6.1 Calculation

Availability is measured from the time of delivery and is calculated monthly. All time during the period before the delivery is treated as if the availability was 100 percent available.

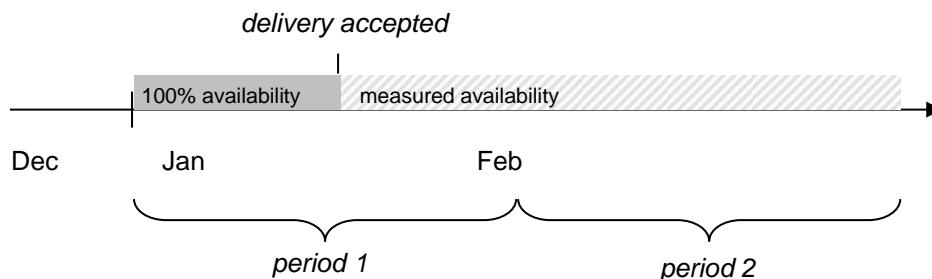


Figure 2 Calculation of availability first month

Availability is based on a measuring of down time according to the definition above during a period including the total amount of time the service is offered excluding suspense time, service windows and planned work. The formula for calculation is presented below.

$$\text{AVAILABILITY} = 1 - \left(\frac{\text{DOWNTIME}}{\text{MEASURINGPERIOD}} \right) * 100 (\%)$$

Figure 3 Availability calculation formula

6.1.1 Down Time

Down time is defined as the total amount of time during service time that a "Fault in service" is detected and classified as "Major fault" according to the definition in Table 6.1 with "Suspense Time", "Service window" and "Planned job"] excluded.

If the customer is unreachable according to communication method agreed upon or if Telenor personnel are unable to access equipment at the customer premises for fault tracking or handling, the time elapsed is treated as suspense time and will not influence the calculation of down time.

If a "Fault in service" is caused by circumstances not controlled by Telenor or by Telenor sub-contractors such as power failure at the customers premises, the time elapsed is treated as suspense time and will not influence the calculation of down time.

6.1.2 Measuring Period

The period used for calculation of availability is defined as the complete period of time during 30 days, (24 hours times 30 days = 720 hours) excluding the time for used service windows and planned jobs.

6.1.3 Fault in Service

Fault in service is classified in two levels. Faults that make the service unusable in any way are classified as "Major fault" and initiate the calculation of down time. Every other fault is treated as a "Minor fault" where the service are still usable but with a lower quality.

Nordic Connect Managed, Partner and Firewall services		
Classification	Error experience	Description
Major fault	The customer is unable to use the service. The service	It is not possible to use the service without fault tracking and repair. The limit for

Nordic Connect Managed, Partner and Firewall services		
Classification	Error experience	Description
	is blocked and response time exceeds the IETF's guidelines (>10s).	accepted amount of packet loss and delay is exceeded permanently according to the guidelines for quality stated in the Service Description. All or most of the customer's users are affected.
Minor fault	Reduced service functionality or capacity but the service is not blocked.	The limit for accepted amount of packet loss and delay according to the guidelines for quality stated in the Service Description are exceeded during short periods.
Irregular event	Customer experiences no change in functionality.	An event currently not affecting customer, but to be analysed.

Table 10 Classification of faults for Managed and Partner services

Nordic Connect OutOffice		
Classification	Error experience	Description
Major fault	The service is blocked or less than 90% of the customer's OutOffice users are able to connect to the Nordic Connect VPN (the 90% limit applies only if more than one user is affected).	It is not possible to use the service without fault tracking and repair. The maximum number of users experiencing problems is exceeded permanently.
Minor fault	Reduced service functionality or capacity but the service is not blocked. More than 90 % of the customer's OutOffice users are able to use the service, or there is only one user experiencing problems.	Some OutOffice users are unable to connect to the Nordic Connect VPN, but the maximum limit of affected users is not exceeded. Maximum fault repair time for individual OutOffice users is 24 hours (calculated during service time).
Note: It is presumed that the customer, or customer's users, has not themselves caused the fault situation due to incorrect configuration, etc. Telenor can only assume responsibility for faults in elements that are part of the OutOffice solution.		

Table 11 Classification of faults for OutOffice services

6.1.4 Measuring Point

Since the service availability calculation is based on the registration of trouble tickets there is no specific measuring point defined.

6.1.5 Fault Announcement

It is possible to make a fault announcement anytime as long as it is made through a communication method agreed upon and defined in The Service Description for the product (alternatively through a sub-provider or Telenor partner). This option is available without any demands on agreed service level. Telenor signs the announcement with a trouble ticket/case number as soon as a fault is detected.

6.1.6 Service Window

A service window is a recurring time period (Mondays 01.00-06.00) where Telenor has the option to perform support on delivered services without influence on the calculation of availability.

Generally all customers are informed about planned jobs on the web at least 5 working days before the allocated time will be taken in charge and in what amount the time will be used.

The customer chooses the way of contact through Webline. Telenor is only able to use 15 hours per 90 days for this kind of service support. Service windows not announced appropriately will be treated as down time during calculation of availability.

6.1.7 Planned Job

A planned job includes all types of service support – performed by Telenor or its sub-contractors, that affects customers outside service windows. Customers affected are informed at least 5 working days in advance by email. Planned jobs not announced appropriately will be treated as down time during calculation of availability.

There is a special case of planned job titled “urgent” relating to a short and minor action that could affect the customers in some way. The “urgent” planned job is announced on Webline and will be performed within 24 hours and with a maximal disturbance of 60 minutes

6.2 Helpdesk

6.2.1 Purpose of the Helpdesk

The purpose of the Helpdesk is to allow the customer to direct all his inquiries concerning faults and Quality of Service of the VPN service to one single point of contact after delivery. The Helpdesk is responsible with regard to the repair of faults and coordination of any activities that are necessary with operative units within Telenor and any other partners. In addition Customer Service handles general inquiries and inquiries regarding invoicing.

6.2.2 Service Parameters

Business hours and phone numbers

The Helpdesk is open every day 00-24. Customer service is open on working days from 08.00 to 17.00 (SE) and 08.00 to 16.00 (NO and DK). Helpdesk and Customer Service can be reached by phone (see table below) or by email (see table below).

Purpose	Phone no. Norway	Phone no. Sweden	Phone no. Denmark
Error reporting	800 400 13	020-22 22 22	+45 7212 1314 Select 1-1
General inquiries	05000	020-22 22 22	+4572120000

Table 12 Contact information by phone

Response times

At least 80% of all incoming phone inquiries will be answered within twenty (20) seconds.

Purpose	Email. Norway	Email. Sweden	Email. Denmark
Error reporting	Telenor.csc@telenor.com	helpdesk@telenor.se	network.service@telenor.dk
General inquiries	05000@telenor.com	kundservice@telenor.se	kundeservice@telenor.dk

Table 13 Contact information by e-mail

Response times

100% of all incoming email error reports will be responded within thirty (30) minutes.

6.3 OutOffice Helpdesk

6.3.1 Purpose of the OutOffice Helpdesk

The purpose of the OutOffice Helpdesk is to allow the customer to direct all his inquiries concerning the service to one single location after delivery. The OutOffice Helpdesk is responsible to the customer with regard to the repair of faults and coordination of any activities that are necessary with operative units within Telenor and any other partners.

6.3.2 Service Parameters

Business hours and phone numbers

The OutOffice Helpdesk is open on working days from 8 am to 10 pm, Saturdays and Sundays 10 am to 6 pm and can be reached by phone (see table below). The Helpdesk is closed on public holidays. Calls in Sweden and Denmark regarding user support will be forwarded to the Norwegian Helpdesk.

Purpose	Phone no. Norway	Phone no. Sweden	Phone no. Denmark
Reporting OutOffice solution faults	04848	020-22 22 22	+45 7212 1314 Select 1-1
OutOffice invoicing inquiries	04848	020-22 22 22	+4572120000
User support for Agenda	04848	020-22 22 22	+45 7212 1314 Select 1-1
User support for OutOffice	04848	020-22 22 22	+45 7212 1314 Select 1-1

Table 14 Contact information by phone for OutOffice

Fault notification - fault handling

Reported faults are registered in Telenor's fault handling system, and the customer is given a reference number. In order for Telenor to notify the customer when the fault has been repaired, the customer must state a contact person and contact method when the fault is reported.

The Helpdesk is responsible for ensuring that the required response time and fault repair time, as well as the feedback time and frequency, (as specified for the product or agreed on with the customer on an ad hoc basis) are met. The Helpdesk is also responsible for ensuring that faults are escalated according to set deadlines.

The Helpdesk is also responsible for keeping the customer advised during the fault repair period, if the expected or specified time required cannot be met. Such feedback will be given before the expiration of the indicated fault repair time. Feedback will be given during the agreed coverage period. The Helpdesk will notify the customer when the fault has been repaired.

6.3.3 Measurement

Measurement of the response time, number of faults and fault repair times will be performed by Telenor's fault registration system. This information will normally be used solely for internal control, and as a basis for improvement processes.

7 Penalties

Telenor is committed to the functionality defined in the Service Description. In this service guarantee an economic penalty is included on extended service levels 4, 5 and 6 if the accumulated *down time* exceeds values for availability, remote and physical fault handling as specified in Fejl! Henvisningskilde ikke fundet..

The compensation is related to the monthly fee and combinations of faults on a service cannot exceed 100% of one monthly fee.

Penalties					
SERVICE LEVEL	PENALTY LEVEL	ACCUMULATED DOWN TIME (AVAILABILITY)			PENALTY
SLA 4, 4.3	fully functional service	-	< down time <	99,6% (~ 3 h)	(no penalties)
	penalty level 1	99,6% (~ 3 h)	< down time <	98,9% (~ 8 h)	30% of monthly fee
	penalty level 2	98,9% (~ 8 h)	< down time <	96,7% (~ 24 h)	60% of monthly fee
	penalty level 3	96,7% (~ 24 h)	< down time		100% of monthly fee
SLA 4.7, 4.8, 4.9	fully functional service	-	< down time <	99,7% (~ 2 h)	(no penalties)
	penalty level 1	99,7% (~ 2 h)	< down time <	98,9% (~ 8 h)	30% of monthly fee
	penalty level 2	98,9% (~ 8 h)	< down time <	96,7% (~ 24 h)	60% of monthly fee
	penalty level 3	96,7% (~ 24 h)	< down time		100% of monthly fee
SLA 5, 5.3	fully functional service	-	< down time <	99,8% (~ 1 h 30 m)	(no penalties)
	penalty level 1	99,8% (~ 1 h 30 m)	< down time <	98,9% (~ 8 h)	30% of monthly fee
	penalty level 2	98,9% (~ 8 h)	< down time <	96,7% (~ 24 h)	60% of monthly fee
	penalty level 3	96,7% (~ 24 h)	< down time		100% of monthly fee
SLA 6	fully functional service	-	< down time <	5 min (~99,99%)	(no penalties)
	penalty level 1	99,99% (~ 5 min)	< down time <	99,5% (~ 3 t 30 m)	30% of monthly fee
	penalty level 2	99,5% (~ 3 t 30 m)	< down time <	98,3% (~ 12 h)	60% of monthly fee
	penalty level 3	98,3% (~ 12 h)	< down time		100% of monthly fee

Table 15 Penalties for the different SLA levels

If the Customer believes he is qualified to receive a refund, he shall submit a written demand for a refund to the Service Provider through his sales or service contact officer. The claim must be presented no later than three (3) months after the month for which the refund is sought.

The refund amount is settled against and deducted from the ordinary invoice to the Customer.

Telenor's Guarantee of Delivery gives the customer a right to reimbursement if the delivery is not completed at the agreed time for Service Completed. The reimbursement corresponds to three months of monthly charges for the affected Nordic Connect access. The terms for the Guarantee of Delivery are outlined in 4.8.